

IN THE CLAIMS:

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1. (currently amended) A method for storage and retrieval of programs and data within a PLC system, the PLC system including a plurality of modules including a memory host module including a CPU and memory, at least one option module including a CPU and memory, the at least one option module including a first option module and a second option module, the first module including a memory, a backplane interconnecting the memory host module and the at least one option module, the memory host module coupled to an external device, said method comprising the steps of:

~~storing in the memory of the memory host module an operating program and data for the option module; and~~

storing a plurality of operating programs and data including a first and a second operating program and data in the external device coupled to the memory host module, wherein the first operating program and data corresponds to the first option module and the second operating program and data corresponds to the second option module;

~~retrieving a first portion of the operating program and data from the memory of the memory host module, wherein the first portion corresponds to the option module; the~~
first operating program and data;

~~retaining, by the memory host module, a remaining portion of the operating program and data; and~~ the second operating program and data; and

~~transmitting the first portion of the operating program and data to the~~ first option module.

2. (currently amended) A method according to Claim 1 further comprising the step of transferring the first ~~portion of the~~ operating program and data for the first option module from the memory of the memory host module to the ~~option module memory~~ memory of the first option module via the backplane.

3. (currently amended) A method according to Claim 1 further comprising the step of transferring the first ~~portion of the~~ operating program and data for the first option module from the memory of the first option module to the memory host module via the backplane.

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4. (currently amended) A method according to Claim 1 wherein the memory host module is further configured with an external device interface, said method further comprising the step of transferring the first ~~portion of the~~ operating program and data for the first option module from ~~an external device, the external device~~ through the memory host module, to the memory of the first option module via the backplane.

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5. (currently amended) A method according to Claim 1 wherein the memory host module is further configured with an external device interface, said method further comprising the step of transferring the first operating program and data for the first option module from ~~an external device, the external device~~ to the memory of the memory host module via the external device interface.

6. (currently amended) A method according to Claim 1 wherein the memory host module further configured with an interface to ~~an external, the external~~ device, said method further comprising the step of transferring the first ~~portion of the~~ operating program and data for the first option module from the first option module through the memory host module via the backplane, to ~~an external, the external~~ device.

7. (currently amended) A method according to Claim 1 wherein the memory host module further configured with an external device interface, said method further comprising the step of transferring the first operating program and data for the first option module from the memory of the memory host module to ~~an external, the external~~ device via the external device interface.

8. (currently amended) A method according to Claim 1 wherein the memory host module further configured with an external device interface, the ~~at least one~~ first option module further configured with an external device interface, said method further comprising the step of transferring the first ~~portion of the~~ operating program and data for the first option module from the memory of the memory host module to the memory of the first option module via the external device interfaces.

9. (currently amended) A method according to Claim 1, wherein the memory host module further configured with an external device interface, the ~~at least one~~ first option module further configured with an external device interface, said method further comprising the step of transferring the first ~~portion of the~~ operating program and data for the first option

module from the memory of the first option module to the memory of the memory host module via the external device interfaces.

10. (currently amended) A memory host for a programmable logic controller (PLC) system, the system comprising at least one option module further comprising an option module memory, said at least one option module including a first option module and a second option module, said first option module including a memory, said memory host comprising a memory, a central processing unit (CPU), and a backplane interface, said memory host coupled to an external device and configured to

store an operating program and data in said memory for the at least one option module; and

retrieve a first portion of the first operating program and data from said memory; wherein the first portion corresponds to said option module; data, wherein the first operating program and data corresponds to said first module;

retain a remaining portion of the operating program and data; and a second operating program and data, wherein the second operating program and data corresponds to said second module; and

transmit the first portion of the operating program and data to the first option module, wherein said external device is configured to store a plurality of operating programs and data including the first operating program and data and the second operating program and data.

11. (currently amended) A memory host in accordance with Claim 10 further configured to selectively transfer the first portion of the operating program and data stored in said memory to the option module memory from said memory host to said memory of said first option module via said backplane interface.

12. (currently amended) A memory host in accordance with Claim 10 further configured to automatically transfer the first portion of the operating program and data stored in said memory to the option module memory from said memory host to said memory of said first option module via said backplane interface.

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13. (currently amended) A memory host in accordance with Claim 10 further configured with means to transfer the first ~~portion of the~~ operating program and data stored in ~~said memory to the option module memory~~ from said memory host to said memory of said first option module via said backplane interface.

14. (currently amended) A memory host in accordance with Claim 10 further configured to retrieve the first ~~portion of the~~ operating program and data from said memory of said first option module ~~the option module memory~~ via said backplane interface for ~~storage in said memory storage.~~

15. (currently amended) A memory host in accordance with Claim 10 further configured with means to retrieve the first ~~portion of the~~ operating program and data from the ~~option module~~ memory of said first option module via said backplane interface for ~~storage in said memory storage.~~

16. (currently amended) A memory host in accordance with Claim 10 further comprising an external device interface adapted to be connected to ~~an external~~ said external device, and further configured to transfer the first operating program and data from the external device to said memory host via said ~~external interface device~~ external device interface.

17. (original) A memory host in accordance with Claim 16 wherein said external device interface is a serial interface.

18. (currently amended) A memory host in accordance with Claim 16 further configured to transfer the first ~~portion of the~~ operating program and data from the external device via the ~~external interface device~~ external device interface to the ~~option module memory~~ memory of said first option module via said backplane interface.

19. (canceled)

20. (currently amended) A memory host in accordance with Claim 16 further configured to transfer the first ~~portion of the~~ operating program and data from the ~~option module memory~~ memory of said first option module via said backplane interface to the external device via the ~~external interface device~~ external device interface.

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21. (currently amended) A memory host in accordance with Claim 16 further configured to transfer the first operating program and data from said memory host to the external device via the ~~external interface device~~ external device interface.

22. (currently amended) A memory host in accordance with Claim 16 further configured to transfer ~~a second portion of the~~ second operating program and data from the memory host via the external device interface to ~~an option module~~ said second option module that further comprises ~~an external interface device~~.

23. (currently amended) A memory host in accordance with Claim 16 further configured to transfer ~~a second portion of the~~ second operating program and data ~~from an~~ said second option module that further comprises ~~an external interface device~~ an external device interface to said memory of said memory host via the ~~external interface device~~ external device interfaces.

24. (currently amended) A memory host in accordance with Claim 10 wherein said memory of the memory host comprises flash memory.

25. (withdrawn) A method for storage and retrieval of programs and data within a programmable logic controller (PLC) system, the PLC system including a plurality of modules including a first module having a CPU and memory, a second module having a CPU and a memory, the first module coupled to an external device, and a backplane interconnecting the first module and the second module, said method comprising the steps of:

storing a plurality of sets of operating programs and data including a first set of operating program and data and a second set of operating program and data within the external device, wherein the second set of operating program and data corresponds to the second module;

receiving, by the first module, ~~a first~~ the first set of operating program and data and a ~~second~~ the second set of operating program and data, wherein the first set of operating program and data corresponds to the first module and the second set of operating program and data corresponds to the second module;

retaining, ~~by the first module~~, the first set of operating program and data; and

transmitting the second set of operating program and data to the second module.

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26. (withdrawn) A method in accordance with Claim 25 wherein the PLC system includes a third module ~~having a CPU and a memory~~, and the backplane interconnecting the first, second, and third modules, said method comprising:

receiving, by the first module, a third set of operating program and data; and

transmitting the third set of operating program and data from the first module to the third module.

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27. (canceled)

28. (withdrawn) A method in accordance with Claim 25 wherein the first module includes a serial interface and said receiving the first and second sets of operating program and data comprises transferring the first and second sets of operating program and data via the serial interface to the first module.

29. (withdrawn) A method in accordance with Claim 25 wherein the first module includes a modem operationally coupled to a network and said receiving the first and second sets of operating program and data comprises obtaining, via the network and the modem, the first and second sets of operating program and data.

30. (withdrawn) A memory host for a programmable logic controller (PLC) system, said PLC system including a plurality of modules including a first module having a CPU and memory, a second module having a CPU and a memory, said first module coupled to an external device, and a backplane interconnecting said first module and said second module, said first module configured to:

receive a first set of operating program and data and a second set of operating program and data, wherein ~~the first set of operating program and data corresponds to said first module and~~ the second set of operating program and data corresponds to said second module;

retain the first set of operating program and data; and

transmit the second set of operating program and data to said second ~~module~~ module, wherein said external device is configured to store a plurality of sets of operating programs and data including the first set of operating program and data and the second set of operating program and data.

31. (withdrawn) A memory host in accordance with Claim 30 wherein said PLC system further includes a third module ~~having a CPU and a memory~~, said backplane interconnecting said first, second, and third modules, said first module configured to:

receive a third set of operating program and data; and

transmit the third set of operating program and data to said third module.

32. (canceled)

33. (withdrawn) A memory host in accordance with Claim 30 wherein said first module includes a serial interface, to receive the first and second sets of operating program and data said first module configured to obtain the first and second sets of operating program and data via said serial interface.

34. (withdrawn) A memory host in accordance with Claim 30 wherein said first module includes a modem operationally coupled to a network, to receive the first and second sets of operating program and data, said first module configured to obtain, via said network and said modem, the first and second sets of operating program and data.

35. (new) A method according to Claim 1 further comprising controlling said PLC system and other PLC systems via said external device.

36. (new) A memory host in accordance with Claim 10 wherein said external device is coupled to said memory host via Internet.